

Figures

2025-01-01 10:00:00

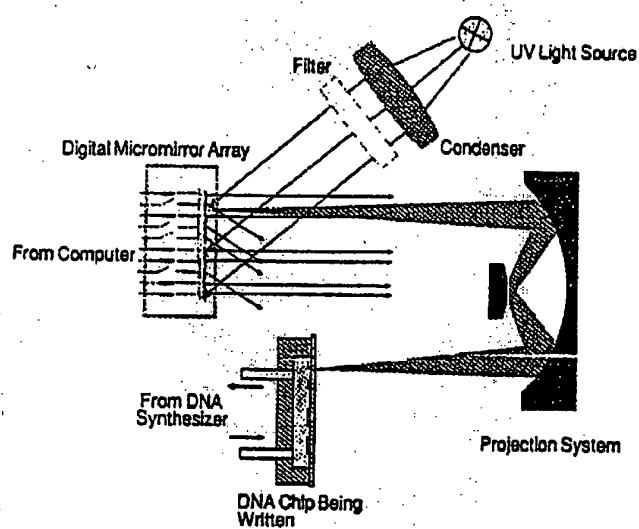


Fig. 1

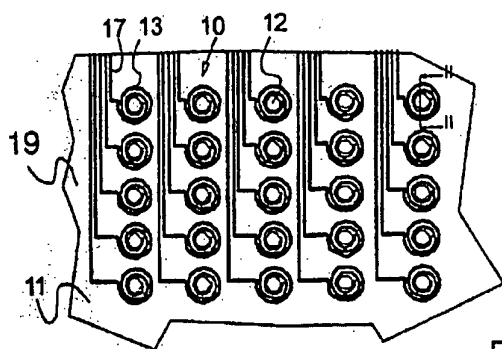


Fig. 2

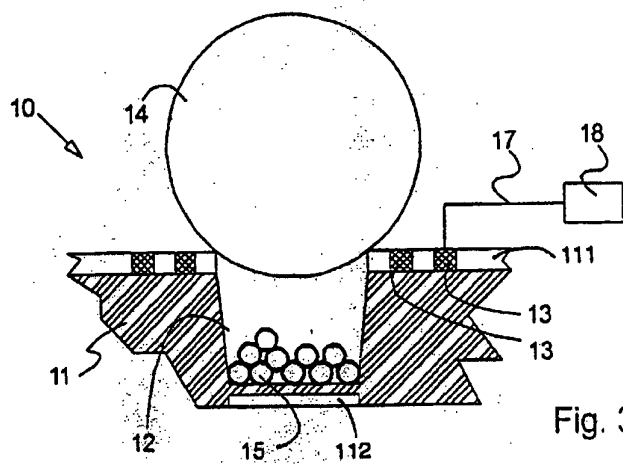


Fig. 3

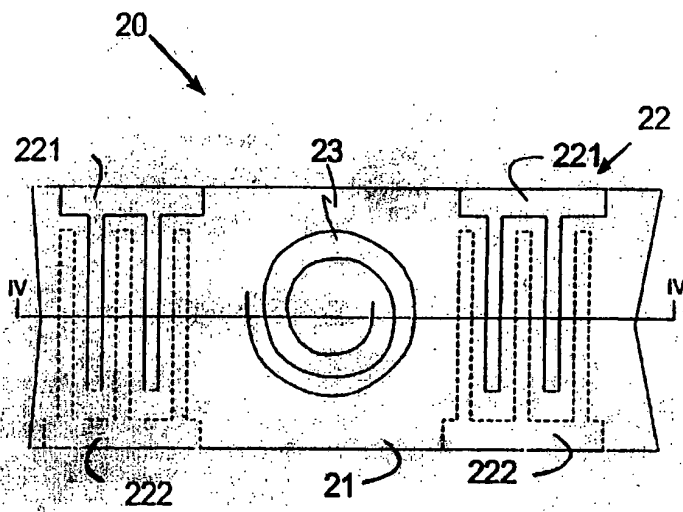


Fig. 4

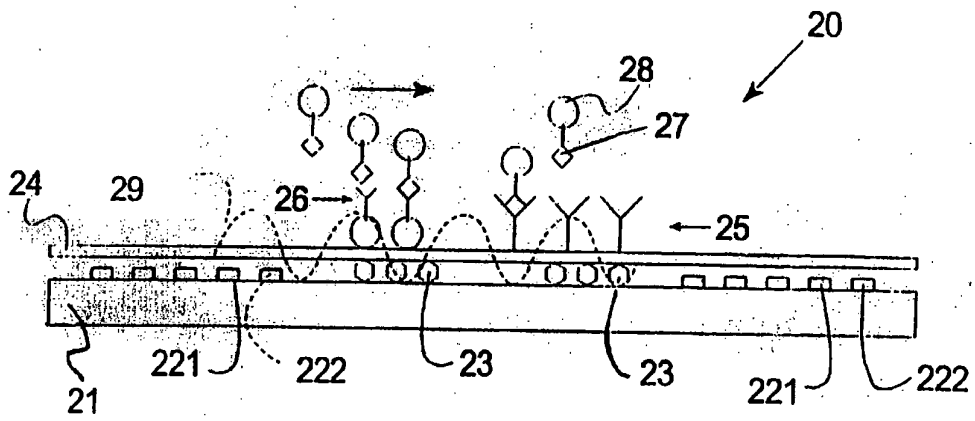


Fig. 5

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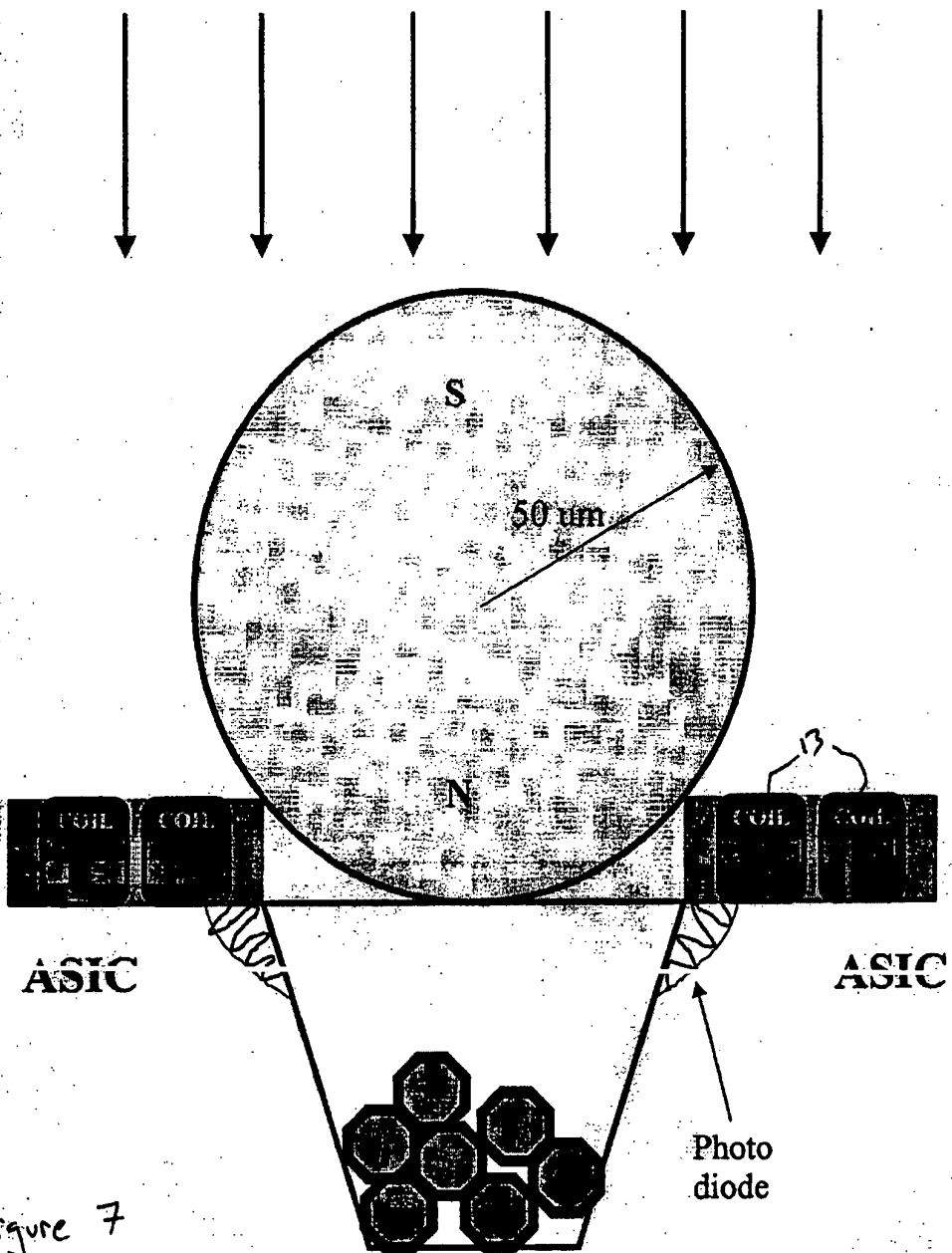
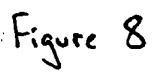


Figure 7

[The page contains faint, illegible markings or bleed-through from the reverse side.]



Particle in pocket, in place over sensor

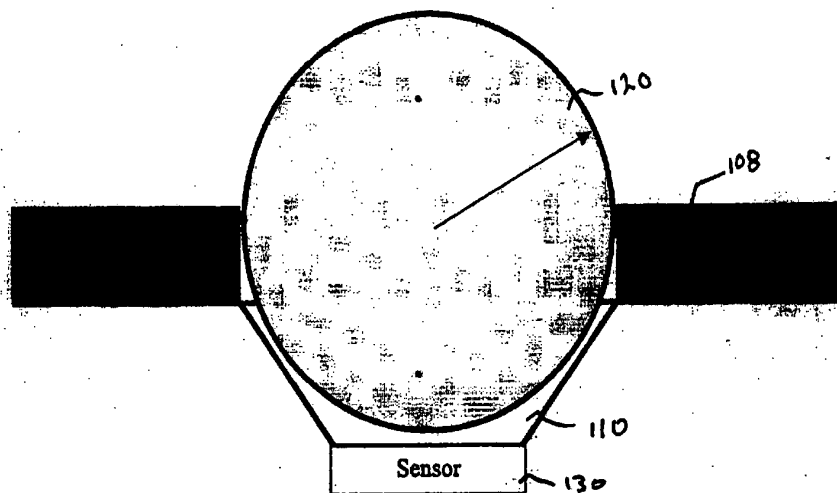


Figure 9

A few examples of some other sensor locations

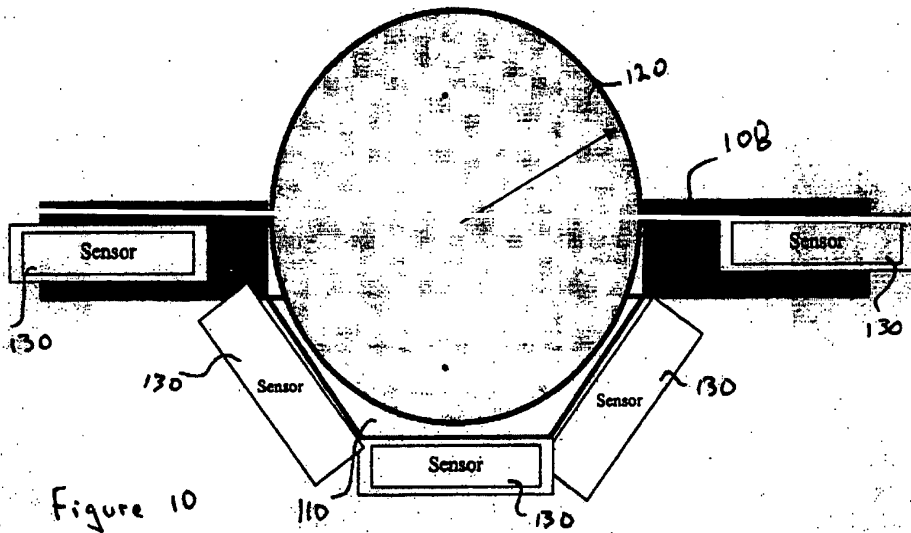


Figure 10

Array of beads in pockets over sensors

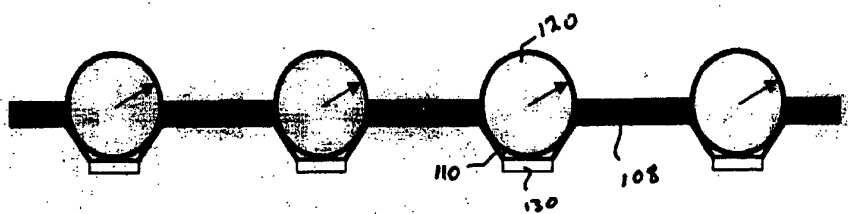
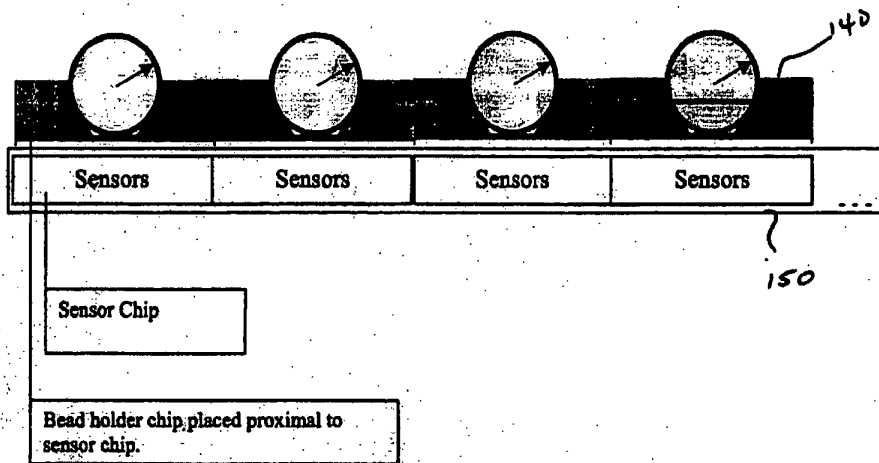


Figure 11

SEPARATELY MANUFACTURED/HANDLEABLE POCKET CHIP AND SENSOR CHIP



Example Sensors : a commercially available CMOS photodiode array

Figure 12

A key aspect is the pre-determined positioning of particles; this allows positioning with respect to sensors:

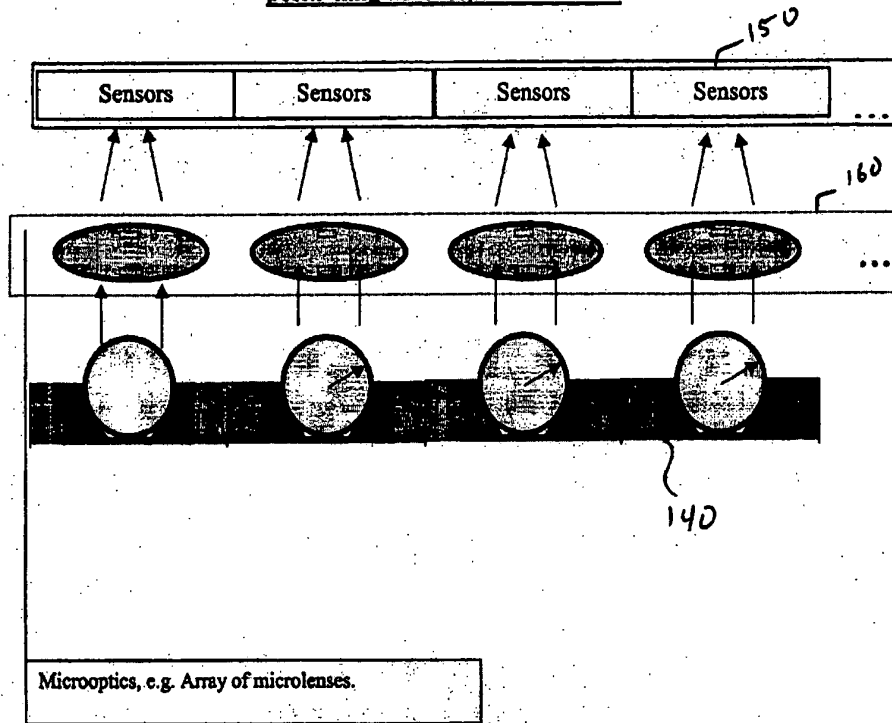


Figure 13

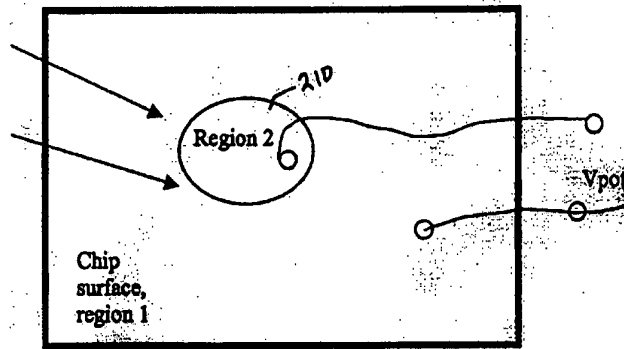


Figure 14. Top view of a silicon surface with a doped region (region 2). The electric circuit is completed by V_{pot} using two leads contacting each region.

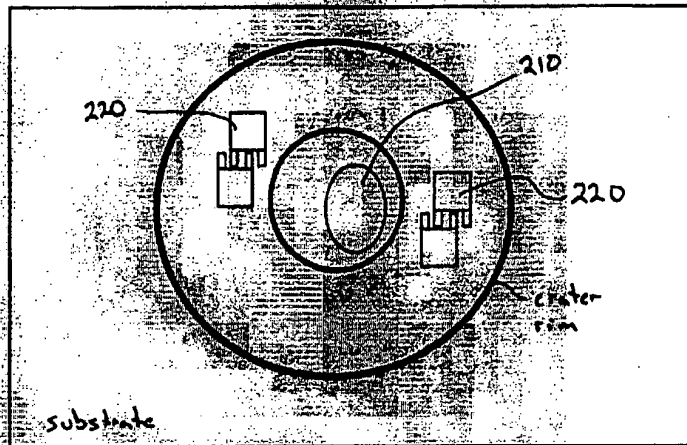


Figure 15. A crater from above, with a doped region (e.g., photodiode) on the bottom and also two circuits with capacitive detection capability on the sloping insides of the crater.

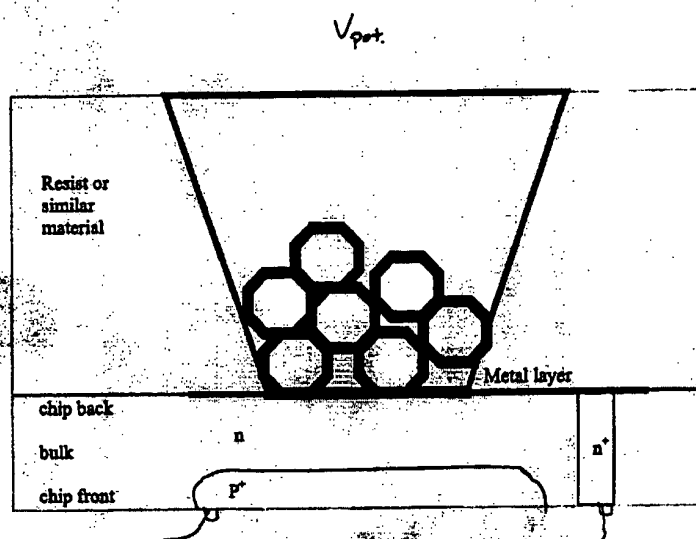


Figure 16